VOLUME CONTENTS

Volume 47, Issue 1, January 2002

Original Articles

1 *J. A. Edmundson and A. Mazumder:* Regional and hierarchical perspectives of thermal regimes in subarctic, Alaskan lakes

19 *K. Räsänen, A. Laurila and J. Merilä:* Carry-over effects of embryonic acid conditions on development and growth of *Rana temporaria* tadpoles

31 *N. Hamada, J. W. McCreadie and P. H. Adler:* Species richness and spatial distribution of blackflies (Diptera: Simuliidae) in streams of Central Amazonia, Brazil

41 *S. Drakare, P. Blomqvist, A.-K. Bergström and M. Jansson:* Primary production and phytoplankton composition in relation to DOC input and bacterioplankton production in humic Lake Örträsket

53 *T. Weisse and A. Frahm:* Direct and indirect impact of two common rotifer species (*Keratella* spp.) on two abundant ciliate species (*Urotricha furcata, Balanion planctonicum*)

65 *E. A. Strauss and G. A. Lamberti:* Effect of dissolved organic carbon quality on microbial decomposition and nitrification rates in stream sediments

75 *J. M. Elliott:* A continuous study of the total drift of freshwater shrimps, *Gammarus pulex*, in a small stony stream in the English Lake District

87 *J. E. Saros and S. C. Fritz:* Resource competition among saline-lake diatoms under varying N/P ratio, salinity and anion composition

97 *J. M. Elliott:* Time spent in the drift by downstream-dispersing invertebrates in a Lake District stream

107 *J. H. Thorp and A. F. Casper:* Potential effects on zooplankton from species shifts in planktivorous mussels: a field experiment in the St Lawrence River

121 *B. E. Modenutti and E. G. Balseiro:* Mixotrophic ciliates in an Andean lake: dependence on light and prey of an *Ophrydium naumanni* population

129 *E. J. Rosi-Marshall and J. B. Wallace:* Invertebrate food webs along a stream resource gradient

143 *J. L. Merriam, W. H. McDowell, J. L. Tank, W. M. Wollheim, C. L. Crenshaw and S. L. Johnson:* Characterizing nitrogen dynamics, retention and transport in a tropical rainforest stream using an *in situ* ^{15}N addition

Applied Issues

161 *D. C. Bradley and S. J. Ormerod:* Long-term effects of catchment liming on invertebrates in upland streams

Volume 47, Issue 2, February 2002

Original Articles

173 *Paul C. Frost and James J. Elser:* Effects of light and nutrients on the net accumulation and elemental composition of epilithon in boreal lakes

185 *B. H. Hill, A. T. Herlihy and P. R. Kaufmann:* Benthic microbial respiration in Appalachian Mountain, Piedmont, and Coastal Plains streams of the eastern U.S.A.

195 *Ian C. Duggan, John D. Green and Russell J. Shiel:* Distribution of rotifer assemblages in North Island, New Zealand, lakes: relationships to environmental and historical factors

207 *Sabri Kilinc and Brian Moss:* Whitemere, a lake that defies some conventions about nutrients

219 *Yo Miyake and Shigeru Nakano:* Effects of substratum stability on diversity of stream invertebrates during baseflow at two spatial scales

231 *Stefan Woelfl and Walter Geller:* Chlorella-bearing ciliates dominate in an oligotrophic North Patagonian lake (Lake Pirehueico, Chile): abundance, biomass and symbiotic photosynthesis

243 *Norbert Kamjunke, Katja Schmidt, Stephan Pflugmacher and Thomas Mehner:* Consumption of cyanobacteria by roach (*Rutilus rutilus*): useful or harmful to the fish?

251 *James A. Craft, Jack A. Stanford and Martin Pusch:* Microbial respiration within a floodplain aquifer of a large gravel-bed river

263 *Dominic T. Chaloner, Mark S. Wipfli and John P. Caouette:* Mass loss and macroinvertebrate colonisation of Pacific salmon carcasses in south-eastern Alaskan streams

275 *David J. Berg, David W. Garton, Hugh J. Macisaac, Vadim E. Panov and Irena V. Telesh:* Changes in genetic structure of North American *Bythotrephes* populations following invasion from Lake Ladoga, Russia

283 *Tom Vindbæk Madsen and Nina Cedergreen:* Sources of nutrients to rooted submerged macrophytes growing in a nutrient-rich stream

293 *Andreas Frutiger:* The function of the suckers of larval net-winged midges (Diptera: Blephariceridae)

303 *Neil D. Bettez, Parke A. Rublee, John O'Brien and Michael C. Miller:* Changes in abundance, composition and controls within the plankton of a fertilised arctic lake

Applied Issues

313 *Beryl Laitung, James L. Pretty, Eric Chauvet and Mike Dobson:* Response of aquatic hyphomycete communities to enhanced stream retention in areas impacted by commercial forestry

325 *Sybille Wunsam, Antonella Cattaneo and Nathalie Bourassa:* Comparing diatom species, genera and size in biomonitoring: a case study from streams in the Laurentians (Québec, Canada)

341 Book Review

Volume 47, Issue 3, March 2002

Freshwater Biology Special Review

343 *R. L. Burks, D. M. Lodge, E. Jeppesen and T. L. Lauridsen:* Diel horizontal migration of zooplankton: costs and benefits of inhabiting the littoral

Original Articles

367 *Alicia S. Schultheis, Albert C. Hendricks and Lee A. Weigt:* Genetic evidence for 'leaky' cohorts in the semivoltine stonefly *Peltoperla tarteri* (Plecoptera: Peltoperlidae)

377 *James G. March, Catherine M. Pringle, Matt J. Townsend and Amanda I. Wilson:* Effects of freshwater shrimp assemblages on benthic communities along an altitudinal gradient of a tropical island stream

391 *Katerina Galacatos, Anthony I. Cognato and Felix A. H. Sperling:* Population genetic structure of two water strider species in the Ecuadorian Amazon

401 *Alexander D. Huryn, Vivian M. Butz Huryn, Chris J. Arbuckle and Leonidas Tsomides:* Catchment land-use, macroinvertebrates and detritus processing in headwater streams: taxonomic richness versus function

417 *M.R. Scarsbrook:* Persistence and stability of lotic invertebrate communities in New Zealand

433 *J. A. Elliott, A. E. Irish and C. S. Reynolds:* Predicting the spatial dominance of phytoplankton in a light limited and incompletely mixed eutrophic water column using the PROTECH model

441 *Geoffrey L. Winsor and David J. Innes:* Sexual reproduction in *Daphnia pulex* (Crustacea: Cladocera): observations on male mating behaviour and avoidance of inbreeding

451 *Catherine J. Hall and Carolyn W. Burns:* Mortality and growth responses of *Daphnia carinata* to increases in temperature and salinity

459 *S. E. Mitchell and G. R. Carvalho:* Comparative demographic impacts of 'info-chemicals' and exploitative competition: an empirical test using *Daphnia magna*

473 *Christian Baranyi, T. Hein, C. Holarek, S. Keckeis and F. Schiemer:* Zooplankton biomass and community structure in a Danube River floodplain system: effects of hydrology

Opinion

483 *Jordi Figuerola and Andy J. Green:* Dispersal of aquatic organisms by waterbirds: a review of past research and priorities for future studies

495 Book Review

Volume 47, Issue 4, April 2002

Editorial

497 *K. Tockner, J. V. Ward, P. J. Edwards and J. Kollmann:* Riverine landscapes: an introduction

Articles

501 *John A. Wiens:* Riverine landscapes: taking landscape ecology into the water

517 *J. V. Ward, K. Tockner, D. B. Arscott and C. Claret:* Riverine landscape diversity

541 *Michael Church:* Geomorphic thresholds in riverine landscapes

559 *Keith Richards, James Brasington and Francine Hughes:* Geomorphic dynamics of floodplains: ecological implications and a potential modelling strategy

581 *A. M. Gurnell and G. E. Petts:* Island-dominated landscapes of large floodplain rivers, a European perspective

601 *A. M. Gurnell, H. Piégay, F. J. Swanson and S. V. Gregory:* Large wood and fluvial processes

621 *Florian Malard, Klement Tockner, Marie-José Dole-Olivier and J. V. Ward:* A landscape perspective of surface–subsurface hydrological exchanges in river corridors

641 *Geoffrey C. Poole:* Fluvial landscape ecology: addressing uniqueness within the river discontinuum

661 *C. T. Robinson, K. Tockner and J. V. Ward:* The fauna of dynamic riverine landscapes

679 *Björn Malmqvist:* Aquatic invertebrates in riverine landscapes

695 *S. T. Buckton and S. J. Ormerod:* Global patterns of diversity among the specialist birds of riverine landscapes

711 *Joachim Adis and Wolfgang J. Junk:* Terrestrial invertebrates inhabiting lowland river floodplains of Central Amazonia and Central Europe: a review*

733 *S. Karrenberg, P. J. Edwards and J. Kollmann:* The life history of Salicaceae living in the active zone of floodplains

749 *W. Carter Johnson:* Riparian vegetation diversity along regulated rivers: contribution of novel and relict habitats

761 *C. Amoros and G. Bornette:* Connectivity and biocomplexity in waterbodies of riverine floodplains

777 *Guy Woodward and Alan G. Hildrew:* Food web structure in riverine landscapes

799 *Leal A. K. Mertes:* Remote sensing of riverine landscapes

817 *A. G. Brown:* Learning from the past: palaeohydrology and palaeoecology

831 *Clifford N. Dahm, James R. Cleverly, Julia E. Allred Coonrod, James R. Thibault, Dianne E. McDonnell and David J. Gilroy:* Evapotranspiration at the land/water interface in a semi-arid drainage basin

845 *Rob S. E. W. Leuven and Isabelle Poudevigne:* Riverine landscape dynamics and ecological risk assessment

867 *M. Jungwirth, S. Muhar and S. Schmutz:* Re-establishing and assessing ecological integrity in riverine landscapes

889 *A. D. Buijse, H. Coops, M. Staras, L. H. Jans, G. J. van Geest, R. E. Grift, B. W. Ibelings, W. Oosterberg and F. C. J. M. Roozen:* Restoration strategies for river floodplains along large lowland rivers in Europe

Volume 47, Issue 5, May 2002

Original Articles

909 *Mike Dobson, Adiel Magana, Jude M. Mathooko and Fidensio K. Ndegwa:* Detritivores in Kenyan highland streams: more evidence for the paucity of shredders in the tropics?

921 *S. Humphries:* Dispersal in drift-prone macroinvertebrates: a case for density-independence

931 *Arnaud Elger, Marie-Hélène Barrat-Segretain and Claude Amoros:* Plant palatability and disturbance level in aquatic habitats: an experimental approach using the snail *Lymnaea stagnalis* (L.)

941 *C. Callieri and R. Piscia:* Photosynthetic efficiency and seasonality of autotrophic picoplankton in Lago Maggiore after its recovery

957 *Mark S. Wipfli and David P. Gregovich:* Export of invertebrates and detritus from fishless headwater streams in southeastern Alaska: implications for downstream salmonid production

971 *Jeremy B. Jones Jr:* Groundwater controls on nutrient cycling in a Mojave desert stream

985 *C. T. Robinson, K. Tockner and P. Burgherr:* Seasonal patterns in macroinvertebrate drift and seston transport in streams of an alpine glacial flood plain

995 *D. B. Ryves, S. McGowan and N. J. Anderson:* Development and evaluation of a diatom-conductivity model from lakes in West Greenland

1015 *M. Filomena Magalhães, Diogo C. Batalha and Maria Ioão Collares-Pereira:* Gradients in stream fish assemblages across a Mediterranean landscape: contributions of environmental factors and spatial structure

Applied Issues

1033 *R. Marchant and G. Hehir:* The use of AUSRIVAS predictive models to assess the response of lotic macroinvertebrates to dams in south-east Australia

Volume 47, Issue 6, June 2002

Original Articles

1051 *Miguel Alvarez-Cobelas, Angel Baltanás, José Luis Velasco and Carmen Rojo:* Daily variations in the optical properties of a small lake

1065 *Christian Fesl:* Biodiversity and resource use of larval chironomids in relation to environmental factors in a large river

1089 *Kevin L. Kirk:* Competition in variable environments: experiments with planktonic rotifers

1097 *V. Vretare Strand:* The influence of ventilation systems on water depth penetration of emergent macrophytes

1107 *Jennifer A. Devine and Michael J. Vanni:* Spatial and seasonal variation in nutrient excretion by benthic invertebrates in a eutrophic reservoir

1123 *Felix Bärlocher and Manuel A. S. Graça:* Exotic riparian vegetation lowers fungal diversity but not leaf decomposition in Portuguese streams

Applied issues

1137 *Klaus Peter Brodersen and N. John Anderson:* Distribution of chironomids (Diptera) in low arctic West Greenland lakes: trophic conditions, temperature and environmental reconstruction

1159 *Anne G. Thomsen and Nikolai Friberg:* Growth and emergence of the stonefly *Leuctra nigra* in coniferous forest streams with contrasting pH

1173 *K. D. Hambright, S. C. Blumenshine and J. Shapiro:* Can filter-feeding fishes improve water quality in lakes?

1183 *C. S. Reynolds and S. C. Maberly:* A simple method for approximating the supportive capacities and metabolic constraints in lakes and reservoirs

1189 Corrigendum

Volume 47, Issue 7, July 2002

Original Issues

1191 *Maria Kahlert, Anders T. Hasselrot, Helmut Hillebrand and Kurt Pettersson:* Spatial and temporal variation in the biomass and nutrient status of epilithic algae in Lake Erken, Sweden

1217 *M. J. Paterson, D. L. Findlay, A. G. Salki, L. L. Hendzel and R. H. Hesslein:* The effects of *Daphnia* on nutrient stoichiometry and filamentous cyanobacteria: a mesocosm experiment in a eutrophic lake

1235 *J. Grey, S. J. Thackeray, R. I. Jomes and A. Shine:* Ferox Trout (*Salmo trutta*) as 'Russian dolls': complementary gut content and stable isotope analyses of the Loch Ness foodweb

1245 *Walter R. Hill and Sarah M. Dimick:* Effects of riparian leaf dynamics on periphyton photosynthesis and light utilisation efficiency

1257 *David W. Kelly, Jaimie T. A. Dick and W. Ian Montgomery:* Predation on mayfly nymph, *Baetis rhodani*, by native and introduced *Gammarus*: direct effects and the facilitation of predation by salmonids

1269 *D. Frisch:* Dormancy, dispersal and the survival of cyclopoid copepods (Cyclopoida, Copepoda) in a lowland floodplain

1283 *Anne Liljendahl-Nurminen, Jukka Horppila, Pertti Eloranta, Tommi Malinen and Laura Uusitalo:* The seasonal dynamics and distribution of *Chaoborus flavicans* larvae in adjacent lake basins of different morphometry and degree of eutrophication

Applied Issues

1297 *K.-M. Vuori and Jussi V. K. Kukkonen:* Hydropsychid (Trichoptera, Hydropsychidae) gill abnormalities as morphological biomarkers of stream pollution

1307 *Paul Humphries, Luciano G. Serafini and Alison J. King:* River regulation and fish larvae: variation through space and time

Volume 47, Issue 8, August 2002

Original Articles

1333 *James R. Thomson:* The effects of hydrological disturbance on the densities of macroinvertebrate predators and their prey in a coastal stream

1353 *G. G. Nicola and A. Almodóvar:* Reproductive traits of stream-dwelling brown trout *Salmo trutta* in contrasting neighbouring rivers of central Spain

1367 *John E. Titus and Angela M. Pagano:* Decomposition of litter from submersed macrophytes: the indirect effects of high $[CO_2]$

1377 *Sangkyu Park, Michael T. Brett, Dörthe C. Müller-Navarra and Charles R. Goldman:* Essential fatty acid content and the phosphorus to carbon ratio in cultured algae as indicators of food quality for *Daphnia*

1391 *Nina Jonsson and Bror Jonsson:* Migration of anadromous brown trout *Salmo trutta* in a Norwegian river

1403 *J. M. Elliott:* The drift distances and time spent in the drift by freshwater shrimps, *Gammarus pulex*, in a small stony stream, and their implications for the interpretation of downstream dispersal

1419 *Guy Woodward, John I. Jones and Alan G. Hildrew:* Community persistence in Broadstone Stream (U.K.) over three decades

1437 *Markus Weitere and Hartmut Arndt:* Top-down effects on pelagic heterotrophic nanoflagellates (HNF) in a large river (River Rhine): do losses to the benthos play a role?

1451 *A.-K. Brunberg, E. Nilsson and P. Blomqvist:* Characteristics of oligotrophic hardwater lakes in a postglacial land-rise area in mid-Sweden

1463 *J. M. Conde-Porcuna, E. Ramos-Rodríguez and C. Pèrez-Martínez:* Correlations between nutrient concentrations and zooplankton populations in a mesotrophic reservoir

1475 *Kaj Sand-Jensen and Dean Jacobsen:* Herbivory and growth in terrestrial and aquatic populations of amphibious stream plants

1489 *Kajsa Åbjörnsson, Christer Brönmark and Lars-Anders Hansson:* The relative importance of lethal and non-lethal effects of fish on insect colonisation of ponds

1497 *Angus R. McIntosh, Barbara L. Peckarsky and Brad W. Taylor:* The influence of predatory fish on mayfly drift: extrapolating from experiments to nature

Applied Issues

1515 *J. N. Negishi, M. Inoue and M. Nunokawa:* Effects of channelisation on stream habitat in relation to a spate and flow refugia for macroinvertebrates in northern Japan

1531 *Nicolas Lamouroux and Yves Souchon:* Simple predictions of instream habitat model outputs for fish habitat guilds in large streams

1543 *Nicolas Lamouroux and Hervé Capra:* Simple predictions of instream habitat model outputs for target fish populations

1557 *D. McKee, D. Atkinson, S. Collings, J. Eaton, I. Harvey, T. Heyes, K. Hatton, D. Wilson and B. Moss:* Macrozooplankter responses to simulated climate warming in experimental freshwater microcosms

Volume 47, Issue 9, September 2002

Original Articles

1571 *S. D. Rundle, A. Foggo, V. Choiseul and D. T. Bilton:* Are distribution patterns linked to dispersal mechanism? An investigation using pond invertebrate assemblages

1582 *Jaana Vaitomaa, Sari Repka, Luydmila Saari, Petra Tallberg, Jukka Horppila and Kaarina Sivonen:* Aminopeptidase and phosphatase activities in basins of Lake Hiidenvesi dominated by cyanobacteria and in laboratory grown *Anabaena*

1594 *Mikio Inoue and Masanori Nunokawa:* Effects of longitudinal variations in stream habitat structure on fish abundance: an analysis based on subunit-scale habitat classification

1608 *Sabine Harms:* The effect of bladderwort (*Utricularia*) predation on microcrustacean prey

1618 *Andreas Frutiger and Gabriella Meier Buergisser:* Life history variability of a grazing stream insect (*Liponeura cinerascens minor*; Diptera: Blephariceridae)

1633 *John J. Gilbert:* Endogenous regulation of environmentally induced sexuality in a rotifer: a multigenerational parental effect induced by fertilisation

1642 *Lucy C. Kelly, Simon D. Rundle and David T. Bilton:* Genetic population structure and dispersal in Atlantic Island caddisflies

1651 *Kevin J. Collier, Sarah Bury and Max Gibbs:* A stable isotope study of linkages between stream and terrestrial food webs through spider predation

1660 *Mark P. Miller, Dean W. Blinn and Paul Keim:* Correlations between observed dispersal capabilities and patterns of genetic differentiation in populations of four aquatic insect species from the Arizona White Mountains, U.S.A.

1674 *E. Andersson and C. Nilsson:* Temporal variation in the drift of plant litter and propagules in a small boreal river

1685 *S. Lapesa, T. W. Snell, D. M. Fields and M. Serra:* Predatory interactions between a cyclopoid copepod and three sibling rotifer species

1696 *Anton Ibbotson, Jim Smith, Peter Scarlett and Miran Aprhamian:* Colonisation of freshwater habitats by the European eel *Anguilla anguilla*

1707 *Balázs Bernáth, Gábor Szedenics, Hansruedi Wildermuth and Gábor Horváth:* How can dragonflies discern bright and dark waters from a distance? The degree of polarisation of reflected light as a possible cue for dragonfly habitat selection

Applied Issues

1720 *Thierry Oberdorff, Didier Pont, Bernard Hugueny and Jean-Pierre Porcher:* Development and validation of a fish-based index for the assessment of 'river health' in France

1735 *R. T. Clarke, M. T. Furse, R. J. M. Gunn, J. M. Winder and J. F. Wright:* Sampling variation in macroinvertebrate data and implications for river quality indices

1752 *Heike Hirst, Ingrid Jüttner and S. J. Ormerod:* Comparing the responses of diatoms and macroinvertebrates to metals in upland streams of Wales and Cornwall

1766 *Lisa A. Courtney and William H. Clements:* Assessing the influence of water and substratum quality on benthic macroinvertebrate communities in a metal-polluted stream: an experimental approach

1779 *James H. Thorp, James E. Alexander Jr and Gary A. Cobbs:* Coping with warmer, large rivers: a field experiment on potential range expansion of northern quagga mussels (*Dreissena bugensis*)

1791 *Andrew B. Sutherland, Judy L. Meyer and Edward P. Gardiner:* Effects of land cover on sediment regime and fish assemblage structure in four southern Appalachian streams

Volume 47, Issue 10, October 2002

Original Articles

1807 *Anne-Mari Ventelä, Krzysztof Wiackowski, Marianne Moilanen, Vesa Saarikari, Kristiina Vuorio and Jouko Sarvala:* The effect of small zooplankton on the microbial loop and edible algae during a cyanobacterial bloom

1820 *C. L. Crenshaw, H. M. Valett and J. R. Webster:* Effects of augmentation of coarse particulate organic matter on metabolism and nutrient retention in hyporheic sediments

1832 *Silvia Mohr and Rita Adrian:* Reproductive success of the rotifer *Brachionus calyciflorus* feeding on ciliates and flagellates of different trophic modes

1840 *R. K. Johnson and W. Goedkoop:* Littoral macroinvertebrate communities: spatial scale and ecological relationships

1855 *L. M. Dionisio Pires and E. Van Donk:* Comparing grazing by *Dreissena polymorpha* on phytoplankton in the presence of toxic and non-toxic cyanobacteria

1866 *Svein B. Wærvågen, Nina A. Rukke and Dag O. Hessen:* Calcium content of crustacean zooplankton and its potential role in species distribution

1879 *M. Elena Cagigas, Emilia Vázquez, Gloria Blanco and José A. Sánchez:* Phylogeographical lineages in brown trout (*Salmo trutta*): investigating microgeographical differentiation between native populations from Northern Spain

1893 *R. Sekar, K. V. K. Nair, V. N. R. Rao and V. P. Venugopalan:* Nutrient dynamics and successional changes in a lentic freshwater biofilm

1908 *Daniel D. Magoulick and Lindsey C. Lewis:* Predation on exotic zebra mussels by native fishes: effects on predator and prey

1919 *M. Filomena Magalhães, Pedro Beja, Catarina Canas and Maria João Collares-Pereira:* Functional heterogeneity of dry-season fish refugia across a Mediterranean catchment: the role of habitat and predation

1935 *Toshiyuki Ishikawa and Jotaro Urabe:* Population dynamics and production of *Jesogammarus annandalei*, an endemic amphipod, in Lake Biwa, Japan

1944 *Heike Kappes and Ulrich Sinsch:* Temperature- and predator-induced phenotypic plasticity in *Bosmina cornuta* and *B. pellucida* (Crustacea: Cladocera)

1956 *Per J. Færøvig, Tom Andersen and Dag O. Hessen:* Image analysis of *Daphnia* populations: non-destructive determination of demography and biomass in cultures

Applied Issues

1963 *Emily G. Bradshaw, N. John Anderson, Jens Peder Jensen and Erik Jeppesen:* Phosphorus dynamics in Danish lakes and the implications for diatom ecology and palaeoecology

1976 *Julian D. Olden and Donald A. Jackson:* A comparison of statistical approaches for modelling fish species distributions

1996 *A. Patoine, B. Pinel-Alloul and E. E. Prepas:* Effects of catchment perturbations by logging and wildfires on zooplankton species richness and composition in Boreal Shield lakes

2015 *Leska S. Fore and Cynthia Grafe:* Using diatoms to assess the biological condition of large rivers in Idaho (U.S.A.)

Volume 47, Issue 11, November 2002

Original Articles

2039 *Jakob C. Müller, Stephanie Schramm and Alfred Seitz:* Genetic and morphological differentiation of *Dikerogammarus* invaders and their invasion history in Central Europe

2049 *Ola Marklund, Håkan Sandsten, Lars-Anders Hansson and Irmgard Blindow:* Effects of waterfowl and fish on submerged vegetation and macroinvertebrates

2060 *William Marshall and Johanna Laybourn-Parry:* The balance between photosynthesis and grazing in Antarctic mixotrophic cryptophytes during summer

2071 *Kyle D. Zimmer, Mark A. Hanson and Malcolm G. Butler:* Effects of fathead minnows and restoration on prairie wetland ecosystems

2087 *Andrew J. Alverson and Gregory W. Courtney:* Temporal patterns of diatom ingestion by larval net-winged midges (Diptera: Blephariceridae: *Blepharicera*)

2098 *Benjamin D. Cook, Stuart E. Bunn and Jane M. Hughes:* Genetic structure and dispersal of *Macrobrachium australiense* (Decapoda: Palaemonidae) in western Queensland, Australia

2113 *Peter C. Cole, Chris Luecke, Wayne A. Wurtsbaugh and Greta Burkart:* Growth and survival of *Daphnia* in epilimnetic and metalimnetic water from oligotrophic lakes: the effects of food and temperature

2123 *M. M. Squires, L. F. W. Lesack and D. Huebert:* The influence of water transparency on the distribution and abundance of macrophytes among lakes of the Mackenzie Delta, Western Canadian Arctic

2136 *S. C. Maberly, L. King, M. M. Dent, R. I. Jones and C. E. Gibson:* Nutrient limitation of phytoplankton and periphyton growth in upland lakes

2153 *F. Marchand, P. Magnan and D. Boisclair:* Water temperature, light intensity and zooplankton density and the feeding activity of juvenile brook charr (*Salvelinus fontinalis*)

2163 *Dieter Gerten and Rita Adrian:* Species-specific changes in the phenology and peak abundance of freshwater copepods in response to warm summers

2174 *C. D. Matthaei and H. Huber:* Microform bed clusters: are they preferred habitats for invertebrates in a flood-prone stream?

2191 *J. M. Medina-Sánchez, M. Villar-Argaiz and P. Carrillo:* Modulation of the bacterial response to spectral solar radiation by algae and limiting nutrients

2205 *Joserra Díez, Arturo Elosegi, Eric Chauvet and Jesús Pozo:* Breakdown of wood in the Agüera stream

2216 *Adrian E. Williams, Brian Moss and John Eaton:* Fish induced macrophyte loss in shallow lakes: top-down and bottom-up processes in mesocosm experiments

Applied Issues

2233 *Simon S. C. Harrison and Iain T. Harris:* The effects of bankside management on chalk stream invertebrate communities

2246 *B. H. Bojsen and R. Barriga:* Effects of deforestation on fish community structure in Ecuadorian Amazon streams

2261 *M. K. Joy and R. G. Death:* Predictive modelling of freshwater fish as a biomonitoring tool in New Zealand

2276 Short Notices

Volume 47, Issue 12, December 2002

2277 *P. Kasprzak, J. Benndorf, T. Mehner and R. Koschel:* Biomanipulation of lake ecosystems: an introduction

2282 *Jürgen Benndorf, Wiebke Böing, Jochen Koop and Ivonne Neubauer:* Top-down control of phytoplankton: the role of time scale, lake depth and trophic state

2296 *Z. Maciej Gliwicz:* On the different nature of top-down and bottom-up effects in pelagic food webs

2313 *S. Hülsmann and H. Voigt:* Life history of *Daphnia galeata* in a hypertrophic reservoir and consequences of non-consumptive mortality for the initiation of a midsummer decline

2325 *M. Tarvainen, J. Sarvala and H. Helminen:* The role of phosphorus release by roach [*Rutilus rutilus* (L.)] in the water quality changes of a biomanipulated lake

2337 *Robert J. Radke and Uwe Kahl:* Effects of a filter-feeding fish [silver carp, *Hypophthalmichthys molitrix* (Val.)] on phyto- and zooplankton in a mesotrophic reservoir: results from an enclosure experiment

2345 *Franz Hölker, Susanne S. Haertel, Silke Steiner and Thomas Mehner:* Effects of piscivore-mediated habitat use on growth, diet and zooplankton consumption of roach: an individual-based modelling approach

2359 *Peter Beeck, Sandra Tauber, Stephanie Kiel and Jost Borcherding:* 0+ perch predation on 0+ bream: a case study in a eutrophic gravel pit lake

2370 *Lene Jacobsen, Søren Berg, Mads Broberg, Niels Jepsen and Christian Skov:* Activity and food choice of piscivorous perch (*Perca fluviatilis*) in a eutrophic shallow lake: a radio-telemetry study

2380 *Wouter J. Van De Bund and Ellen Van Donk:* Short-term and long-term effects of zooplanktivorous fish removal in a shallow lake: a synthesis of 15 years of data from Lake Zwemlust

2388 *C. Skov, M. R. Perrow, S. Berg and H. Skovgaard:* Changes in the fish community and water quality during seven years of stocking piscivorous fish in a shallow lake

2401 *Piotr Dawidowicz, Andrzej Prejs, Andrzej Engelmayer, Andrzej Martyniak, Jacek Kozłowski, Lech Kufel and Małgorzata Paradowska:* Hypolimnetic anoxia hampers top–down food-web manipulation in a eutrophic lake

2410 *R. C. Lathrop, B. M. Johnson, T. B. Johnson, M. T. Vogelsang, S. R. Carpenter, T. R. Hrabik, J. F. Kitchell, J. J. Magnuson, L. G. Rudstam and R. S. Stewart:* Stocking piscivores to improve fishing and water clarity: a synthesis of the Lake Mendota biomanipulation project

2425 *Klaus Wysujack and Thomas Mehner:* Comparison of losses of planktivorous fish by predation and seine-fishing in a lake undergoing long-term biomanipulation

2435 *E. H. R. R. Lammens, E. H. van Nes and W. M. Mooij:* Differences in the exploitation of bream in three shallow lake systems and their relation to water quality

2443 *Fernando Starling, Xavier Lazzaro, Cristine Cavalcanti and Ricardo Moreira:* Contribution of omnivorous tilapia to eutrophication of a shallow tropical reservoir: evidence from a fish kill

2453 *Thomas Mehner, Jürgen Benndorf, Peter Kasprzak and Rainer Koschel:* Biomanipulation of lake ecosystems: successful applications and expanding complexity in the underlying science

2467 Author Index